

### BRIEF DESCRIPTION OF THE DRAWINGS

The appended claims set forth the features of the invention with particularity. The invention, together with its advantages, may be best understood from the following detailed description taken in conjunction with the accompanying drawings of which:

5        FIGs. 1A-B are block diagrams illustrating a prior art associative memory with block masks and prior art approaches for combining masks from two access control lists;

      FIGs. 2A-2D illustrate the generation as performed in one embodiment of an array/matrix progressively identifying the number of different masks required for subset orderings of masks required for subsets of multiple ACLs;

10       FIGs. 2E-F illustrate the traversal as performed in one embodiment of an array/matrix to identify a mask ordering;

      FIGs. 3A-C illustrate an array/matrix generated and traversed in one embodiment to identify a mask ordering;

15       FIG. 4A is a flow diagram illustrating a process used in one embodiment for generating and traversing an array/matrix;

      FIG. 4B is a flow diagram illustrating a process used in one embodiment for generating and traversing an array/matrix;

      FIG. 5 illustrates pseudo-code used in one embodiment for generating and traversing an array/matrix; and

20       FIGs. 6A-<sup>C</sup>~~F~~ are block diagrams of various exemplary systems including one or more embodiments for reducing the number of block masks required for programming multiple access control lists in an associative memory and/or for performing lookup operations on the programmed associative memories.

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